Conservation of objects in the care of the National Railway Museum

I. **Policy Statement**

The National Railway Museum (NRM) holds the national collection relating to the history and development of railways. Through this collection audiences can explore the technological, social and cultural impact of railways, and understand how they reflect and shape our lives, and the world in which we live.

As part of the National Museum of Science & Industry (NMSI) the NRM is legally obliged to "care for, preserve and add to the objects in (its) collections". Preservation and conservation are therefore at the heart of the NRM's mission and it is committed to ensuring that the collection in its care is displayed, made accessible and stored in a safe. secure and sustainable way, now and for the future². This will be achieved according to best practice, without compromising the collection's physical, historical and technological integrity.

2. Organisational structure and roles

The care of the collections is the responsibility of the Knowledge & Collections department. Its functional groups include the Curatorial, Conservation and Engineering sections. The Curatorial team is comprised of subject specialists in particular fields, who also have responsibility for the care of discrete collections, encompassing railway vehicles; objects; library; archives; image; film; and sound. The Conservation team manages the practical treatment of objects and provides professional expertise and advice on minimising the deterioration of the collections. The Engineering team manages the conservation, restoration and operation of vehicles and, occasionally, some of the larger objects.

- The Conservator has responsibility for object conservation, working with professional conservators and the conservation assistants to implement standards and procedures for the treatment and care of the museum's objects. The conservation staff are responsible for carrying out work on the collections; advising other museum staff on collections care; and, together with curators, liaising with freelance conservators engaged by the NRM. Conservation assistants are responsible for basic cleaning of objects, some minor interventions and the day-today implementation of pest management and cleaning regimes.
- The Engineering & Rail Operations Manager manages the workshops team, and oversees the movement and operation of rail vehicles on and off site. The team comprises time-served engineers, fitters and machinists, and specialists in rail movements who are responsible for restoring and conserving vehicles in the national collection.
- Volunteers with specialist conservation and engineering skills provide assistance to specific conservation and engineering projects.
- Staff will be trained to ensure they have the necessary skills to care for the collections to the highest possible standard, and keep up with the latest best practice.

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¹ National Heritage Act 1983, Chapter 7, Section 10, 1(a)

² This policy covers all sites at which the National Railway Museum collection is housed, including the NRM in York, Locomotion at Shildon and loan venues.

- All NRM staff will follow the collections care guidelines and procedures when working with the collections. Only trained personnel will undertake conservation work.
- If expertise is not available in-house, work will be out-sourced to specialists. Where appropriate, freelance conservators contracted by the NRM will hold the Professional Accreditation of Conservator-Restorers (PACR).

3. Conservation activities:

Conservation undertaken at the NRM includes the following activities:

- **Preventive conservation:** Ensuring that objects are stored or displayed in an environment that minimises deterioration. This includes designing, implementing and maintaining suitable environments; monitoring levels of heat, light, chemical and biological agents, moisture, gaseous and particulate pollutants; and taking action to ensure that these remain within acceptable limits.
- Interventive conservation: The treatment of objects, including examination, cleaning, stabilisation to limit physical and chemical deterioration, repair, restoration, and the documentation of processes and materials.
- **Collections care:** The employment of preventive conservation principles in museum activities, including the display, storage, handling, moving, packing and the general physical care of objects.
- Collections surveys: Regular monitoring of collections or individual objects to
 identify and address deterioration. Surveys highlight significant changes which
 influence the collections care strategy and include an annual audit of collections care,
 which is peer-reviewed by conservators and curators across the NMSI.
- Conservation research: Research into new methods and materials, undertaken as in-house projects and in collaboration with other institutions. All research results will be made available to the conservators and the wider public.
- Managing conservation by external conservators: Employing external specialists to treat objects where the museum lacks suitable in-house conservation skills.
- **Restoration:** Restoring vehicles and objects to working order, so that they can be operated for the enjoyment and benefit of the museum's users.
- **Hazard remediation:** Managing hazards in the collections. This is undertaken inhouse when appropriate skills and experience are available, and with the assistance of specialist contractors where staff do not have appropriate expertise.
- **Disaster planning and salvage:** Planning and preparing the response to incidents which might threaten the collections, including salvage, recovery, remedial treatments, preventive measures and training.

4. Interfacing with the Museum:

The Conservation and Engineering teams provide expert advice and training to support the following museum activities:

- Design, construction and installation of exhibitions and displays
- Design, construction and preparation of storage areas for collections
- Public events held in museum galleries
- Public events and activities involving the use of vehicles and objects
- Replication of museum objects

- Operation and maintenance of vehicles and historic objects from the museum collections
- Loans of vehicles and objects to other institutions
- Loans of vehicles and objects from other institutions
- Clearance of displays and exhibitions

All collections-based activities will take account of the vehicles' and objects' conservation requirements, and where necessary will be supported by members of the conservation or engineering teams.

5. Conservation procedures and organisation of work:

Conservation activities will be organised on a prioritised basis to make the best use of the available resources. Priority will be given to:

- Major exhibition and storage programmes
- Care initiatives identified by audits and surveys (for instance by the annual review of key performance indicators for collections care)
- Rolling programmes designed to improve collections care and access
- The remedial treatment of vulnerable or damaged objects
- The railway vehicle operating programme

Priorities will be identified in the Knowledge & Collections departmental business plan and work will be allocated according to the availability of staff, facilities, skills and expertise. Conservation will be a collaborative process between curators, conservators and engineers, with proposed treatments discussed and agreed before any work begins.

6. Governing principles:

Legislation of particular relevance to conservation includes:

- National Heritage Act 1983
- Health and Safety at Work etc Act 1974
- Museums & Galleries Act. 1992
- Public Records Act, 1958
- Disability Discrimination Act, 1995
- Freedom of Information Act, 2000
- Data Protection Act, 1998

The following standards, codes and requirements are also relevant:

- Museums Association's Code of Ethics for Museums
- Museums, Libraries & Archive Council's Accreditation Scheme
- Collections Trust's SPECTRUM, The UK Museum Documentation Standard
- BS 5454:2000 Recommendations for the Storage and Exhibition of Archival Documents
- BS 4971:2002 Repair and allied processes for the conservation of documents -Recommendations
- PAS 198 Specification for environmental conditions for cultural collections
- The National Archives Standards for Record Repositories

Due consideration will also be given to the European Committee for Standardization's emerging standard for the protection of heritage objects:

CEN/TC 346 Conservation of cultural property

The following NMSI standards, policies and procedures guide the NRM's preservation and conservation work:

- National Museum of Science & Industry Collections Management, Statement of Aims
- National Museum of Science & Industry Collections Management Policy
- National Museum of Science & Industry Collecting Strategy
- National Railway Museum Collecting Policy
- National Railway Museum Collections Access Policy
- National Museum of Science & Industry Health & Safety Policy
- National Museum of Science & Industry Hazard Management Plan
- Policy and Procedures for Selecting and Operating Historic Objects from the Collections of the National Museum of Science & Industry
- National Railway Museum Disaster Plan
- National Railway Museum Collections Salvage Plan

7. Glossary:

- Cleaning: the removal of accretions such as dust or dirt, through mechanical or chemical means.
- Conservation Assistant: member of staff who assists in cleaning; packing and moving objects; and the preparation of exhibitions.
- Conservation: actions which extend the life of an artefact by stopping or slowing destructive processes, including managing the surrounding environment and undertaking treatment to halt degradation.
- Conservator: professionally trained and qualified conservation specialist.
- Consolidation: recovering the loss of consistency of original material through mechanical or chemical means.
- Environmental monitoring: activities undertaken to evaluate the quality of an environment over time, through measuring factors such as temperature, relative humidity and pollution.
- Integrated pest management: a programme designed to monitor and prevent pest infestation.
- Operating: using an object for the purpose it was originally intended for, such as running a machine or driving a vehicle.
- Preservation: maintaining the existing form, integrity and materials of an object, and arresting or slowing deterioration.
- Preventive conservation: the mitigation of deterioration and damage through managing the environment where objects are exhibited or housed; implementing handling, storage and display procedures; and controlling exposure to mechanical stress or pollutants.
- Repair: the restoration of an object to a sound condition following damage.
- Replication: copying or reproducing an original work or component.
- Restoration: returning an object to a previous state and appearance, through the reconstitution or reconstruction of its components.

- Stabilisation: actions which ensure the integrity of an object through arresting material deterioration, or maintaining its structural integrity.
- Treatment: the deliberate alteration of the chemical and physical aspects of objects to prolong their existence, through stabilisation or restoration.